Zion National Park Springdale vicinity Washington County Utah HABS No. UT-108

HABS UTAH, 217-SPDAN, 7-

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Park Service
Rocky Mountain Regional Office
Department of the Interior
PO Box 25287
Denver, Colorado

Zion National Park HABS No. UT-108 (page 1)

HISTORIC AMERICAN BUILDINGS SURVEY

ZION NATIONAL PARK

UTAH,

HABS

27-SPDA.

Location:

Zion National Park Springdale. Utah } ___

Present Owner:

Department of the Interior, National Park

Service

Present Use:

National Park

Statement of Significance:

The significance of historical resources within Zion National Park is linked to their relationship to three prominent historical themes: Pioneer Mormon Settlement of the canyon, landscape architecture/transportation, including one highway, tunnels, and trails to provide access to and within Zion; and the prevalence of "NPS-Rustic" style for both concession-built and National Park Service-built buildings in the park. The buildings, structures and sites included in the multiple resource nomination for Zion exemplify the development of these three historical themes.

The significance of the historical resources within Zion National Park derive from their association with three historic themes: (1) Pioneer Mormon Settlement; (2) landscape architecture and transportation (trails, roads, bridges, and tunnels); and (3) architecture, including concessionaire as well as National Park Service structures designed and built in the "NPS-Rustic" architectural style.

The structures, complexes, sites, and individual buildings listed below are included in the multiple resource nomination for Zion. Individual inventory forms for each resource are attached to this nomination. These "List of Classified Structures (LCS)" inventory forms contain information on location, classification, architectural description, historic development, integrity, significance, and bibliographic references.

COMPLEXES

Oak Creek Historic Complex Pine Creek Historic Complex Zion Lodge/Birch Creek Historic Complex

STRUCTURES

Crawford/Gifford Canal Oak Creek Canal Pine Creek Canal

SITES

Angels Landing/West Rim Trail Canyon Overlook Trail East Rim Trail Emerald Pools Trail Gateway to the Narrows Trail Grotto Trail Hidden Canyon Trail Zion-Mt. Carmel Highway

- a. Virgin River Bridge
- b. Pine Creek Bridge
- C. Zion-Mt. Carmel Highway Tunnel

Cable Mountain Draw Works

BUILDINGS-thematically-related to "NPS-Rustic" style.

East Entrance Sign
East Entrance Checking Station
East Ranger's Residence
South Entrance Sign
Museum (Grotto Residence)
Grotto Camping Ground North Comfort Station
Grotto Camping Ground South Comfort Station

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South Campground Comfort Station Temple of Sinawava Trailside Exhibit Building South Campground Amphitheatre Zion Inn (Zion Nature Center) The significance of historic resources in Zion is linked to their relationship to three prominent historical themes: Pioneer Mormon Settlement of the canyon; landscape architecture/transporation, including one highway, tunnels, and trails to provide access to and within Zion; and the prevalence of "NPS-Rustic" style for both concession-built and National Park Service-built buildings in the park. The buildings, structures, and sites included in the multiple resource nomination for Zion exemplify the development of these three historical themes.

I. PIONEER MORMON SETTLEMENT

The first permanent presence of European man in Zion Canyon began in 1862 when Joseph Black discovered suitable farmsites on the flatlands in front of the present Zion Lodge and near the Grotto. Black was one of the handful of Mormon pioneers who were called by Brigham Young on a cotton mission to Utah's "Dixie" and who settled in the present-day Springdale Area in 1861.

In a near-desert locale such as Zion Canyon, as well as in most other regions of Utah's Dixie, irrigation was the backbone of agriculture. Irrigation ditches were dug in the upper area of the canyon (Grotto), but longer and more elaborate canals in the lower area near the park's south boundary are still visible. Unfortunately, even modest ditches were difficult to construct and maintain due to periodic floods. Two inoperative ditches that attest to the pioneer settlers' perseverance and engineering skills can be found in Zion Canyon. The Crawford/Gifford and Pine Creek Canals were constructed by turn-of-the-century Mormon agriculturalists to irrigate crops of sorghum, corn, and alfalfa.

When Mukuntuweap (Zion) National Monument was established in 1909, many of these pioneer families were still farming small irrigated plots. The caution earlier exercised by Federal officials in not disturbing the early settlers led to administrative difficulties when Zion became a national park in 1919. About 20 families continued to operate farms located on the Virgin River flood plain immediately to the south of the park's boundary throughout the 1920s. The Crawfords, an early and extended Mormon family, owned land, barns, and homes at Oak Creek. In 1931 the south boundary of Zion was extended by the purchase of approximately 600 acres of farmland. All the structures were purchased by the National Park Service and removed from the park in 1932.

When Brigham Young visited the Springdale Area in 1863, there was growing discontentment among the pioneers due to a variety of hardships including drought, floods, and an abundance of vexing insects. Another major problem facing the new Mormon settlers was the lack of good lumber to construct homes, schools, and churches. While only poor building-quality cottonwood could be obtained along the Virgin River Valley, substantial stands of Ponderosa Pine and Douglas Fir grew 2,000-feet above on the mesa tops. Attempts to roll logs off the sheer cliffs resulted in heaps of kindling at the bottom. In an attempt to quiet the frustrated settler's complaints and encourage their self-

sufficiency, Young announced that timber would one day come down from the cliffs "like a hawk flying."

The prophesy was realized 38 years later by an inventive Irish-American, David Flanigan, who conceived of and implemented the means of delivery. During the summer of 1901, David Flanigan, his brother William, and a neighbor carried a full 100-pound bail of wire to the top of the mountain. Throughout the summer, they worked at completing the structure. Flanigan devised a five-strand cable wire and perfected the cable mechanisms until several loads of lumber were successfully sent down on September 21, 1901.

Little use was made of the draw works until the fall of 1904 when Flanigan purchased a run-down sawmill and moved it near the canyon's rim. In 1907, he sold the mill and cable works to the Clifford, Crawford, and Stout families because it was "making of us boys, old men." In 1911, the top works was struck by lightning and burned to the ground, but the cable was raised from the canyon floor and the structure rebuilt. The last major contract undertaken by the cable works was with the Union Pacific Railroad for lumber used in the construction of Zion Lodge. After 1925, the supply of easily accessible timber on the mountain had been virtually depleted. The cable works remained unused until 1930 when the cable was removed by the National Park Service. The one-half-million dollar Zion-Mt. Carmel Highway, dedicated that same year, linked Zion Canyon to the plateau above, making airborne lumber transporation "like a hawk flying" obsolete.

Contributing historical resources (see individual inventory (LCS) forms) are:

Structures:

- 1) Crawford/Gifford Canal
- 2) Pine Creek Canal

Sites:

1) Cable Mountain Draw Works

II. LANDSCAPE ARCHITECTURE AND TRANSPORTATION

On July 31, 1910, President Taft proclaimed the establishment of Mukuntuweap National Monument encompassing the Mukuntuweap or North Fork of the Virgin River and its valley. No appropriations were made until 1916, when Congress set aside \$15,000 for the improvement of 15 miles of roads into the valley. Early visitors recall the still primitive nature of the first roads when the Wylie Camp Company began a 5-year concession contract with the National Park Service in 1917. The park was enlarged in 1918 from 15,840 acres to 76.800 acres, adding areas to the west of the North Fork Canyon including the Coalpits Wash. At that time, the name of the national monument was changed from Mukuntuweap to Zion, since early Mormon settlers referred to it by that name, and it was more easily recalled than the earlier name given it by Major John Wesley Powell during his 1872 visit. Senator Smoot introduced bills in 1917 and 1918 to change the national monument to a national park. In 1919, Senators Smoot and King, and Representative Welling again introduced a bill which was passed by Congress with a \$7,300 appropriation. (Ise, Our National Park Policy, 241-243). Six hundred acres were added to the south boundary in 1930,

and in 1936 Kolob Rerservoir was named Zion. It was joined to the park in 1956.

Horace Albright, Assistant Director of the National Park Service, made several visits to the area and spent 2 years convincing Director Steven Mather to visit southern Utan, which he eventually did in 1921. At this early date, few tourists came to Zion because of its inaccessibility and there was little development in the area. The park was truly unspoiled by commercial activity. The early visitors to the park arrived by train, auto, buggy, or horse, and often a combination of these means. The Los Angeles and Salt Lake Railroad came within 80 miles of the west section of Zion. The Denver and Rio Grande Railroad passed 135 miles north of Zion. From each rail terminus, visitors travelled by private conveyance over rough roads. When Congress appropriated \$15,000 in 1916, for construction of a dirt road 7 miles into the Canyon, the way was only figuratively paved for the development of tourism at the national monument.

That year, Engineer W. O. Tufts was dispatched from Washington, D.C., to conduct a preliminary survey for an entrance road leading into Mukuntuweap (Zion). On November 1, 1916, construction was begun at the south border and by the time the new National Park Service commenced operation in 1917, a passable auto road led into Zion Canyon as far as the Cable Works (Weeping Rock Parking Area).

The historic trails, tunnels, roads, and bridges in Zion are products of the "NPS-Rustic" style of landscape architecture and engineering design which dominated National Park Service construction throughout the 1920s and 1930s. The style's tenets were an intensive use of hand labor, rejection of regularity and symmetry in building materials, and acceptance of the premise that a structure employing native building materials blended best with the natural environment. Properly executed, "NPS-Rustic" transporation structures achieved sympathy with their natural surroundings and the past. As early as 1910, the need for landscape improvements in the nation's parks was clearly discernable. In most, little had been done to protect roadside beauty, trails, roads, corrals, and buildings had been constructed with little regard for the environment and scenery.

Although there were "NPS-Rustic" precedents in other parks prior to its establishment, Zion was at the cutting edge of the National Park Service's landscape architecture movement. Its commitment to landscape architecture was apparent in the selection of the East Rim Trail as the first to be developed in the park. A National Park Service construction crew worked to improve the trail during the winter of 1918 and in the spring of 1919. Originally an Indian and pioneer trail which provided access into Zion Canyon, the East Rim Trail was the weak link in the short-cut route between Orderville and St. George. Service-built architectural features included dry laid sandstone retaining walls and irregular rock steps built without mortar.

The primary task of the Landscape Engineering Division was to design a network of trail and roads in Zion that would be structurally, as well as environmentally, sound. Between 1924 and 1926, Landscape Engineer Daniel Hull and his assistant T. C. Vint, were responsible for design work on the East and West Rim Trails. In a year when the Zion Grotto Museum cost \$3,500 to build,

the East and West Rim Trails were constructed at an expenditure of almost \$41,000 which was specifically appropriated by Congress.

In 1926, the National Park Service began to receive regular appropriations for the construction of roads and trails. That year, the Angels Landing Trail was completed at Zion in accordance with the plans drawn at the National Park Service's Division Headquarters in Los Angeles, California. Two of the more daring trails ever constructed by the National Park Service, the routes required hikers to ascend by means of sturdy handrails, chains, and steps hand chiseled into the shear sided spines of cliffs.

The Grotto Trail connecting the Zion Lodge and Museum (now the Grotto Residence) was designed with weathered rock walls and grapevines in order to give the path a rustic appearance. The Emerald Pools Trail was approved by Zion Superintendent, P. P. Patraw, who was a Road and Bridge Engineer from the Western Field Office. The stone work on the trail was done by hand to obtain the highest standards of durability and natural appearance.

The year 1927 was a landmark for the National Park Service as the Landscape Division, now comprised of Vint and John Wosky, was transferred to San Francisco where it was housed in a joint "Western Field Office" with the National Park Service Civil Engineering Division and the Bureau of Roads which was the primary building arm of the Service. This transfer, which facilitated communications between various branches, corresponded with the beginning of a period of unparalled development, a good portion of which was enjoyed by Zion.

By 1928, Mather convinced Congress that roads and trails needed by the National Park Service required a long-term investment of more than \$50 million, and annual appropriations of \$7.5 million began. An expanded budget allowed Vint, who was an enlightened supervisor with a keen eye for talent, to hire a number of promising young architects, a number of whom, including Engineers Edward Nickel and Harry Langley would play a prominent role in future Zion construction.

At Zion, the Civil Engineering Division was represented by Chief Engineer, F.A. Kittredge, and Assistant Engineer, Guy D. Edwards, who were field headquartered in the park during the 1928-1929 seasons. In 1928, these two men were responsible for a survey of the Mukuntuweap River (Virgin River) from the Temple of Sinawava to the Utah Parks Company utility grounds, showing estimate costs of new dikes and repair of existing ones; oiling the Floor of the Valley Highway as well as the East and West Rim Trails; locating and constructing of the Hidden Canyon Trail; a survey for relocating and paving the Narrows Trail; and an investigation of possible water supplies along the West Rim Trail.

As was typical for Western Division field personnel, Edwards returned to the San Francisco Office to draw the blueprints for the Gateway to the Narrows Trail in the winter of 1928-1929. His commitment to the "NPS-Rustic" school of design was apparent as the trail, when completed in July 1929, had a course of vertical curves and winding alignment that suggested Nature's work rather than man's. The previous summer, Kittredge and Edwards had made a deliberate attempt in layout and construction to blend the Hidden Canyon Trail into the cliffs of the East Rim and shield it from view. Brush and evergreen trees along the trail were carefully protected from damage by blasting and tumbling

rock, and extreme care was taken to ensure that the landscape would be scarred as little as possible.

Trails were not the only park transporation systems designed by the engineers of the Western Field Office to harmonize with the environment. A monumental road project, the Zion-Mt. Carmel Highway, begun in 1927, would link U.S. Highways 91 (9) and 89 and complete the tourist loop route from Zion to Bryce, Kaibab, Cedar Breaks, and the North Rim of the Grand Canyon. Thomas H. MacDonald, Chief of the Bureau of Public Roads, and his engineering assistants completed the 3-year highway project in 1930. Ironically, this highway promoted by the Utah Parks Company, a subsidiary of the Union Pacific Railraod, facilitated increased automobile traffic which eventually displaced rail transportation to the parks.

Early in the 1920s, passable automobile roads connected the scenic points of southern Utah and northern Arizona, but the route was indirect and required backtracking. In 1923, U.S. District Engineer B. J. Finch and Howard C. Means, a Utah State Road Engineer, were sent to Zion National Park by their respective agencies to investigate a possible shorter and more direct route eastward toward Mt. Carmel. Upon their arrival in the park, the two engineers conferred with John Winder, a local rancher and guide who was familiar with the topography of the area. Following a thorough reconnaissance, the three men concluded that a road up Pine Creek with a tunnel through the Great Arch was the most logical route to provide access into the park from the east.

Initially, the proposed Pine Creek Route aroused skepticism because of the expense involved in tunneling for more than a mile through a shear sandstone cliff. The National Park Service assisted in a survey of alternative routes, including one up Parunuweap Canyon, but Pine Creek was ultimately selected because it traversed Zion where Federal funds would be available without the required match by the State of Utah. Congressman Louis C. Crampton of Michigan, Chairman of the House Committee of the National Park Service, took a personal interest in the highway and tunnel and sponsored the almost \$2 million in Federal appropriations that made construction possible.

Constructed from 1927 to 1930 by the Nevada Construction Company of Fallow, Nevada, the Zion-Mt. Carmel Highway Tunnel is one of the most spectacular engineering feats in the history of road-building within the Rocky Mountain Region of the National Park Service. Instead of surveying the tunnel from above, as was the usual practice, engineers had to determine the route from the base of The Great Arch. In some places this was 200 feet below the intended level of the tunnel shaft (Markoff, Dudes, #125).

Bridge design presented a particular challenge to National Park Service architects. Bridges needed to be substantial and easy to maintain, yet modern material, such as concrete, did not blend well with the natural scenery. In February 1928, Thomas C. Vint, Chief Landscape Engineer at the Western Field Office, and Bridge Engineer Angwin from the Regional Office, made inspections of the bridge sites on the Zion-Mt. Carmel Highway which was in the process of construction. Work on the Pine Creek and Virgin River Bridges fell behind schedule due to design difficulties. Although open for the Highway Dedication Ceremony held on July 4, 1930, neither bridge was officially completed until the end of the month.

Work on the Virgin River Bridge, located at the head of the highway just north of Pine Creek, finally commenced in October 1929. Constructed as a three span steel I beam structure, the bridge was skillfully camouflaged with 54 inch redwood slabs to give it a rustic appearance. The spans were supported by two ashlar sandstone piers. The result was a steel bridge that appeared to be constructed of sandstone blocks and rough-hewn sawmill slabs.

The Pine Creek Bridge, a masonry arch bridge constructed of native sandstone, is located at the base of the six switch-backs which wind up Pine Creek Canyon to the tunnel on the Zion-Mt. Carmel Highway. The bridge is made entirely of Navajo sand stone with a cemented rubblestone core. The barrel of the arch, constructed with massive supporting key in the upper center, is 23-feet high. The precision of the stone work was made even more impressive by the skillful blending of blocks of several different colors and shades of colors in the arch and side walls. Tan, brown, pink, red, purple and some green tones are found in in the hand hewn rock. These vary, in turn, with the intensity of natural light and provide a great diversity of hues. The result was a trouble free modern bridge with a traditional appearance that achieved a high degree of sympathy with its natural setting and other "NPS-Rustic" park structures.

The CCC, army of young men sent into the parks primarily to combat erosion, check insect infestation, and for reforestation work, was proposed by President Roosevelt only hours after his oath of office. Approved by Congress and organized under the Emergency Conservation Work Act, CCC enrollees were recruited by the Department of Labor, organized, and transported by the War Department, and put to work by the Departments of Agriculture and Interior. The National Park Service was one of the bureaus which received enrollees under the Department of the Interior allotment. Most Americans considered the CCC as primarily having a relief function with a secondary mission of performing useful conservation work. The young men of "Roosevelt's Tree Army" were regarded as an expression of the resurgence of some of America's pioneer beliefs because they brought back visions of a lost frontier, the perfectibility and promise of youth, and the therapeutic powers of the wilderness (Parham, "The CCC In Colorado, 12).

The Western Field Office Landscape Architects and Engineers headquartered at Zion worked in conjunction with the "juniors" of CCC Camps NP 2, 3, and 4 after their organization in the summer of 1933. While the young and generally unskilled enrollees lacked the proficiency needed in sophisticated building techniques, they had adequate skills for the closely supervised, rough-hewn, labor intensive "NPS-Rustic" style. The CCC enrollees of the 200 member NP 2 Camp completed a 1/2-mile trail designed by Landscape Architect Harry Langley from the east portal of the Zion-Mt. Carmel Highway Tunnel to an observation point over The Great Arch in the summer of 1933. Camp NP 2 Superintendent F. R. Rozelle supervised the work which was approved by park Superintendent P. P. Patraw. The CCC-built features along the trail include rock-hewn steps and observation platform, dry-laid sandstone block retaining walls, and a steel strut and wood plank foot bridge.

In addition to their road and trail contributions, CCC forces were intensely utilized in the construction and maintenence of Zion irrigation canals. In 1933, enrollees widened the pioneer-built Crawford/Gifford Canal in accordance

with the design plans drawn by Harry Langley. In 1934, enrollees extended the headworks of the pioneer-built Pine Creek Canal 1/4-mile to the Virgin River. The following year, Harry Langley designed and CCC workers constructed the Oak Creek Canal which irrigated shrubs and trees within the South Campground.

The quarrying and shaping of building stone was the third area in which CCC personnel played a prominent role in Zion. In 1934 Langley and Norgard developed a stone quarry at the base of a cliff approximately 1 mile to the west of Springdale. The quarry cliffs which are naturally crosshatched by horizontal cross bedding and vertical fracture joints, provided an almost unlimited supply of building rock which was shaped by CCC men up to 1941. Contributing historical resources (see individual inventory (LCS) forms) are:

Sites:

- 1) Angels Landing/West Rim Trail
- 2) Canyon Overlook Trail
- 3) East Rim Trail
- 4) Emerald Pools Trail
- 5) Gateway to the Narrows Trail
- 6) Grotto Trail
- 7) Hidden Canyon Trail
- 8) Zion-Mt. Carmel Highway
 - a) Virgin River Bridge
 - b) Pine Creek Bridge
 - c) Zion-Mt. Carmel Highway Tunnel
- 9) Oak Creek Canal

III. "NPS-RUSTIC" STYLE

The historic structures in Zion are indicative of the "NPS-Rustic" style which dominated National Park Service architecture in the 1920s and 1930s. The intent of the style was to design buildings which would not intrude upon the natural scenic beauty and which would actually blend with the local terrain by a use of building materials and massing similar to the natural materials found in the park. The style was also used for other man-made structures such as gates, fireplaces, water fountains, curbings, bridges, retaining walls, and road systems.

The style was formally codified by the National Park Service in its 1935 publication Park Structures and Facilities. The salient characteristics of the "NPS-Rustic" style at Zion are the predominant use of red sandstone to blend with the precipitous canyon walls, roughly dressed and laid with large mortar joints; combined with generally over-scaled wood elements such as beams, rafters, and eaves which extend beyond and break the edges of the roof and wall.

The consistent use of building materials and the coherence of the design was ensured by the presence of the Western Office architects and engineers in the field at Zion. Harry Langley, Harlan B. Stephenson, and Edward A. Nickelare were responsible for some buildings executed while they were also designing and supervising the construction of trails and roads in the park. Many architectural drawings for lesser buildings such as comfort stations and

residences were not individually signed.

After the Wylie Permanent Camping Company was granted the franchise for tourist accommodations by the National Park Service in 1916, Zion offered visitors the opportunity to camp comfortably amidst the park's scenic attractions. William W. Wylie had first established a permanent camp in 1883 at Yellowstone, where he organized a 10-day tour so that tourists could travel through the park by stopping each night at a campsite with eating and sleeping accommodations. As an alternative to hotel accommodations, the "Wylie Way" was popular with park visitors. When he sold his business in 1905, the company retained his widely-recognized name.

The benefits of Mukuntuweap National Monument as a tourist draw to and from the North Rim of the Grand Canyon were not missed by entrepreneurs. Gronway and Chauncey Parry, brothers in the tourism business in Cedar City, applied for franchises for both camping and transportation activities in 1915 after camping in Zion that winter. William Wylie had been approached by the Los Angeles and Salt Lake Railroad (LA and SL Railroad) with an offer of \$13,500 in investment capital for Wylie to establish a camp in Zion. In 1916, the National Parks Transportation and Camping Company was formed as a holding company of the LA and SL Railroad, with the Parry's in charge of transportation and Wylie in charge of establishing a camp. The railroad expected a healthy return of their investment in the form of additional purchase tickets, but the First World War dampened hopes for a successful enterprise. Although tourists visited sporadically, Zion itself gained publicity through the efforts of the LA and SL Railroad and the National Park Service.

The Union Pacific Railroad's acquisition of the LS and SL Railroad and of concession rights at Zion was due in part to Steven Mather. He approached the railroad with the suggestion that they make a substantial investment at Zion and control all concession facilities. Mather preferred one large company with complete charge to several small competing firms.

In 1923, with southern Utah opening to tourism and the potential for a substantial increase in passenger rail travel, the Utah Parks Company, a subsidiary of the Union Pacific Railroad, was formed. The Company commenced their building program at Zion soon after they were awarded the contract in 1923. The architectural designs of the concessionaire were submitted to the park Service's Western Office of Plans and Design for approval.

Zion Lodge was begun in the fall of 1924. Despite a disagreement between park Service Director Steven Mather, who preferred smaller clusters of accommodations in Zion, and the Utah Parks Company, which wanted a large hotel to attract well-to-do visitors, a compromise was reached. The site chosen was the former Wylie Camp site at the base of the east wall of Zion Canyon. The architect of the lodge and all the surrounding structures built by the Utah Parks Company to provide accommodations, food, and services for park visitors was Gilbert Stanley Underwood.

After receiving degrees from Harvard and Yale Universities and establishing academic and professional connections with Daniel Hull, who was working in Los Angeles as the Chief of the National Park Service Landscape Engineering (Architecture) Office, Underwood had moved to the city in 1923 (Zaitlin,

Underwood, 10). Underwood was hired by the National Park Service to design new buildings at Yosemite. Although his work was not approved, he was hired that year by the Union Pacific Railroad for their collaboration with the National Park Service at Zion.

Underwood was well-versed in and sympathetic to the rustic style developed by the National Park Service. His designs for the Utah Parks Company buildings are complementary to designs produced by Daniel Hull and his staff for administrative and residential National Park Service buildings. Underwood designed all buildings erected by the Utah Parks Company between 1924 and 1934. These included the original Zion Lodge, a two-story frame building with a hipped roof, portico, and second-story terrace on stone piers, completed in 1925; the Women's Dormitory (1927); the cabins, with flushboard walls inside rather than outside the stud framing and some with stone corner chimneys (1927 and 1929); the Swimming Pool and Bathhouse (1928); Stable (1929); Cafeteria (1934); and many buildings for services, facilities, employees' housing, maintenance, and supplies (Markoff, 93).

Underwood's work at Zion was simpler than cabins at Bryce Canyon National Park and the North Rim of the Grand Canyon National Park. At the North Rim, for example, the use of wide log halves for walls, smaller whole logs for porch railings and balusters, and large irregularly dressed rocks for piers and chimneys is meant to integrate the structures into an alpine environment of ponderosa pine. At Zion, the cabin walls are of milled planks and laid flush, the porch railings and balusters are of boards, and the exposed stud frame reinforces the style which derives its charm from its simple construction technique. The use of rock is not only more confined, but is limited to smaller blocks. In sum, the Zion cabins are smaller-scaled and designed for a less-timbered terrain which is dominated by rock walls, and a flat valley floor which at that date was still inhabited by pioneer settlers.

The concessionaire purchased passenger vehicles, including "auto-stages" seating 11 passengers, to convey visitors along the Scenic Loop of Cedar City, Zion, Pipe Springs National Monument, the North Rim of the Grand Canyon, and Bryce Canyon National Park. While at Zion, the vehicles were garaged in buildings of corrugated steel with exterior wood studding in the Birch Creek Area.

The Utah Parks Company inaugurated the 1925 season with a grand opening to celebrate the completion of the lodge and their assumption of all concession operations in the park. On May 18, leaders from local towns, Utah Governor Dern, Union Pacific Railroad officials, and Mormon Church President Heber J. Grant, gathered with the Zion staff under park Superintendent Walter Reusch to open the park officially. One thousand one hundred fifty-two visitors came to participate in the events (Markoff, 103).

The extant National Park Service buildings from the 1920s, located in the Grotto Picnic Area and the Pine Creek Historic Complex, are all characterized by very large blocks of local red sandstone, minimally dressed, laid in random courses, in which the block faces are battered. Six-by-six-inch extended beams and exposed rafter ends are the norm, and the low-pitched roof have eaves which extend up to 2 feet beyond the wall.

The Grotto Area was the first camping ground in Zion and was converted to picnic use only after the development of the Watchman Campground in the mid-1960s. The museum (since 1936, The Grotto Residence) is the oldest building remaining in the park. Also remaining are two comfort stations. The Pine Creek Historic Complex has always been the primary residential area in the park, since it has housed the key personnel at Zion since its design in the late 1920s.

In the 1930s, the structures in the park reflect the rapid growth of park facilities and necessity for the regional design office to use the same plans for more than one structure. The presence of CCC camps at Zion created a labor pool which was put to work mainly on conservation projects in the park, but which also contributed to the construction of buildings. The CCC enrollees were generally not familiar with this type of work, but were supervised by resident architects and engineers in the park, and by mechanics, stone masons, and carpenters.

The buildings in the Oak Creek Historic Complex, the South Campground, and Temple of Sinawava, and at the East and South Entrances all reflect a less exaggerated use of massive stones, with a corresponding refinement in beam, purlin, and rafter size. Walls are grounded in an identifiable, more standard design of stepped rocks which rise with straight outer edges without the undressed corner stones so prevalent in the park structures built during the previous decade. Mortar joints are smoother, and although ashlar blocks are uncoursed for the part, they are placed in a more regular and straight-edged pattern. Overhanging eaves are still prevalent, but less exaggerated. The use of rough-sawn pine planks is most notable in Oak Creek Residences, which indicates a trend in the mid-to-late-1930s toward use of this less expensive and less labor-intensive building material. The Oak Creek Residences are noteworthy in that they show a great variety in design, plan, and scale; yet they achieve a coherent collected appearance by the use of similar stone and wood patterns. They are the best example in the park of the design changes which occurred during this decade.

With the Ranger Dormitory, constructed at Oak Creek in 1941, the rustic period at Zion draws to a close. There is a contrast between this smooth-faced sandstone facade and the irregular rock-faced and battered walls of buildings dating 15 years earlier. The Ranger Dormitory is regular in plan and facade, with refined masonry work. A wooden cornice and cornice returns run under the eaves rather than exposed rafter ends and extended beams. In its rectangular shape and low-pitched roof, it is, in fact, an example of the National Park Service's revival of local vernacular building modes within the parks. The Dormitory, with its Greek Revival detailing, reflects 19th century Mormon settlement dwellings built in the immediate vicinity of the park.

The outbreak of World War II and the discontinuation of the Public Works Projects foretold the decline of the "NPS-Rustic" style at Zion and throughout the National Park Service. After 1941, the architectural and engineering staff of the Western Field Office was greatly reduced, labor-intensive projects had become uneconomical, and competent stone masons and log builders capable of heading crews became increasingly difficult to find. In addition, a gradual infusion of new architects into the National Park Service throughout the 1930s brought with them new design concepts such as the "International Style," which

emphasized use of modern building materials and structural honesty. By 1955, with the onset of the massive Mission 66 building boom with its rejection of the architectural principles of the earlier rustic style, the period of "NPS-Rustic" style can be said with certainty to have drawn to a close.

Contributing structures (see individual inventory (LCS) forms) are:

Complexes

Oak Creek Historic Complex Pine Creek Historic Complex Zion Lodge/Birch Creek Historic Complex

Buildings--Thematically-related to rustic construction:

East Entrance Sign
East Entrance Checking Station
East Ranger's Residence
South Entrance Sign
Museum (Grotto Residence)
Grotto Camping Ground North Comfort Station
Grotto Camping Ground South Comfort Station
South Campground Comfort Station
Temple of Sinawaya Trailside Exhibit Building
South Campground Amphitheatre
Zion Inn (Zion Nature Center)

METHODOLOGY

A complete historic inventory of structures in Zion was completed prior to the evaluation of structures eligible for inclusion in the multiple resource nomination. From June to October 1984, James Jurale and Nancy Witherell, Historians, National Park Service, documented 181 buildings, structures, and sites with inventory (LCS) cards. Of these, 75 are contributing structures within Zion and, therefore, directly related to one of three themes associated with the park's history: Pioneer Mormon Settlement, Landscape Architecture/Transportation, and "NPS-Rustic" Style. Nominated properties are eligible for inclusion under Criteria A, B, and C. Structures are not included if they have been moved from their original site, do not have individual architectural integrity and have lost their historic context, if they have lost their historical/architectural integrity through alterations, or if they were constructed after 1941. Ten contributing historical resources built between 1936 and 1941 are nominated for inclusion because they are directly related in style, construction, and material to earlier park structures and represent the continuum of the "NPS-Rustic" style. Without their inclusion, the architectural theme would be incompletely represented in the nomination.

The inventory identified three historic complexes which are linked to the theme of architecture. Each of the three complexes are internally related by geographic location, date, and style of construction. Ten individual resources also related to the theme of "NPS-Rustic" style are listed separately.

Archeological resources in Zion are being assessed independently by the Midwest Archeological Center, Lincoln, Nebraska, and will be nominated later.

The information contained in this multiple resource nomination will be incorporated in Zion's revised Cultural Component of their Resource Management Plan and the State of Utah's Comprehensive Planning Process.

I. PIONEER MORMON SETTLEMENT

Mormon pioneers began settlement of Zion Canyon in 1862. Of these early homesteads, only foundations and subsurface resources remain within Zion. By 1931, in accordance with National Park Service policy, all settlement properties were removed from the park. Today, two irrigation canals and a cable draw works are the only existing examples of early settlement which made the canyon hospitable to agricultural development. The Cable Mountain Draw Works is listed individually on the National Register of Historic Places. The simple technology used to construct the canals has been modernized continuously over the years, but neither canal has been realigned or filled in. Their significance, therefore, lies in their location and historical association with the Mormon farming and not in the technology or modern irrigation mechanisms, such as headgates, located along their respective rights-of-ways. All other resources associated with this particular historic theme, including some homestead sites and sites of former irrigation canals, have been evaluated and found to be non-contributing because of loss of historic integrity.

Contributing historical properties:

- A) Cable Mountain Draw Works (listed individually in 1978)
- B) Crawford/Gifford Canal

C) Pine Creek Canal

A) Cable Mountain Draw Works

A major problem facing early Mormon settlers to the area was the lack of good timber for construction. While only poor quality cottonwood could be obtained along the Virgin River Valley, substantial stands of Ponderosa Pine and Douglas Fir grew on the mesa tops above the canyon. Brigham Young, in a visit to the Sprindale Area in 1863, revealed that timber would one day come down from the cliffs "like a hawk flying." In 1901, David Flanigan conceived of and implemented the means of delivery. Cable mechanisms and five-strand steel cable wire housed on the southwest edge of Cable Mountain above the present-day Weeping Rock Picnic Area were used to lower lumber loads 2,000 feet to the canyon floor. A structure was rebuilt on the site of the original building after it was struck by lightning in 1911. Listed individually on the National Register of Historic Places in 1978, the draw works is considered the oldest and most historically significant pre-park structure at Zion, and all remains at the site contribute to its significance.

B) Crawford/Gifford Canal

The Crawford Canal was built by Mormon settlers in Zion whose small community of farms in the Oak Creek Canyon was sometimes referred to as Crawfordville. Water was diverted from the Virgin River approximately 1 mile north of the present-day Virgin River Bridge. In 1933, Civilian Conservation Corps (CCC) personnel widened the canal to 18 inches for a distance of 5,178 feet. Although the canal is no longer functional, its course is clearly visible and the channel is outlined by cottonwood trees as it traverses the base of the Virgin Formation northwest of the Visitor's Center. The alignment of the canal is historically significant and not the canal's modern irrigation mechanisms.

3) Pine Creek Canal

The Pine Creek Canal appears to have been developed by Mormon agriculturalists in the 1890s. The canal, which drew water off Pine Creek immediately to the east of its confluence with the Virgin River, ran to the south at the foot of a talus slope and sent laterals to the west, irrigating the 2 1/2-mile "island" of farmland located between the east bank of the Virgin River and Bridge Mountain. The Public Works Project which refurbished the canal's delivery system illustrates how the canal has been continuously upgraded since original construction.

II. LANDSCAPE ARCHITECTURE AND TRANSPORTATION

The theme of transportation and landscape architecture includes the Zion-Mt. Carmel Highway, which completed in 1930, allowed access to the park from the east, and thus created the tour loop of the national parks and monuments in southwest Utah and northern Arizona. The criteria outlined below was used in identifying the one historic highway in Zion-the Zion-Mt. Carmel Highway. Notable contributing resources on the Zion-Mt. Carmel Highway include the 1-mile Zion-Mt. Carmel Highway Tunnel, the Virgin River Bridge, the Pine Creek Bridge, and the beautifully crafted stone retaining walls supporting the numerous switchbacks located west of the tunnel. Using the same criteria

listed below, approximately 23 miles of trails were nominated from a total of 126 miles of trails in Zion. Contributing historical features along these trails include rock slab retaining walls, revetments, observation platforms, rock wall and wood bridges, sandstone benches, and intricately carved switchbacks. The technology and craftsmanship involved in constructing the trails was considerable and included cutting and blasting stone on high canyon wall faces, chiselling steps and walls in rock surfaces, and constructing retaining walls and revetments at the canyon edges. The trails were built during the 1920s and 1930s to provide tourist access to sections of the park along the Zion Canyon Valley and rims. Irrigation was often the key to successful landscape design in Zion. For example, National Park Service Landscape Architect Harry Langley, designed the Oak Creek Canal in 1935 to provide water to a system of laterals which irrigated trees and shrubs planted in a reforestation program at South Campground.

In evaluating trails and roads for their eligibility, we used the following criteria as a specific expression of the National Register Criteria: (Criterion A) Trails built before 1941; (Criterion C) Trails which contained man-made features such as retaining walls which reflect the "NPS-Rustic" landscape engineering/arhitectural style; and, (Criterion D) Trails which presented significant civil engineering challenges during their construction and design. Trails and roads such as the Floor of the Valley Highway which did not meet these criteria were not included in the nomination. No trail or road met Criterion B or D. The Zion Canyon Scenic Drive did not present significant civil engineering challanges during the road's construction and as a consequence, was determined to be a non-contributing resource.

Contributing historical resources:

- 1) Angels Landing/West Rim Trail
- 2) Canyon Overlook Trail
- 3) East Rim Trail
- 4) Emerald Pools Trail
- 5) Gateway to the Narrows Trail
- 6) Grotto Trail
- 7) Hidden Canyon Trail
- 8) Zion-Mt. Carmel Highway
 - a) Pine Creek Bridge
 - b) Virgin River Bridge
 - c) Zion-Mt. Carmel Highway Tunnel
- 9) Oak Creek Canal

1) Angels Landing/West Rim Trail

The Angels Landing Trail starts at Scout's Lookout (elevation 5,477) on the West Rim Trail and runs along the edge of a narrow and stee-sided sandstone ridge. The trail climbs more than 300 feet in 1/2-mile, and is neither graded nor paved. The National Park Service does, however, maintain several contributing historic features such as hand-hewn footholds on the trail, as well as chains and railings which have been attached to the cliff. Constructed in 1926, following the completion of the West Rim Trail which provides access to Scout's Lookout, Angels Landing is one of the more dramatic trails ever built by the National Park Service.

Begun in 1925, the West Rim Trail was officially dedicated on July 11, 1926, at a ceremony held during the visit of Crown Prince Gustavus and Princess Louise of Sweden. Estimated building costs for the 2 years was \$125,000. Construction on the trail was resumed in 1935 when "Walter's Wiggles," a series of 17 complete switchbacks up a 60-degree chimney above Refrigerator Canyon, were carved into some of the park's most difficult terrain and buttressed with locally quarried, grouted, sandstone blocks. Rock used in the "Wiggles" and retaining walls was shaped as little as possible to provide a stable construction with a rough appearance. All historic man-made features on the trail contribute to its significance.

Canyon Overlook Trail

Designed by National Park Service Landscape Architect Harry Langley, and built by CCC enrolees, this 2,450-foot trail was built in 1933 from the east portal of the Zion-Mt. Carmel Highway Tunnel to an observation point over The Great Arch. It climbs the rock ledges above Pine Creek Canyon by means of scores of chiseled sandstone steps, which are now severely worn and could provide a future hazard to health, life, and safety. Other man-made improvements and contributing elements along the trail include: a rock plaque lectern, dry laid sandstone block retaining walls, a steel strut and wood plank footbridge, and metal pipe guardrailings which were approved at the time of construction.

3) East Rim Trail

Originally an Indian trail which provided access into Zion Canyon, the East Rim Trail was improved by pioneer rancher John Winder in 1896. It was barely passable when Mukuntuweap (Zion) Canyon was established as a national monument in 1909. National Park Service crews worked to improve the trail during the winter of 1918 and the spring of 1919. Rising 4 miles from the Weeping Rock Parking Area, and cutting into the Navajo Sandstone Cliffs, the trail provides access to other East Rim Plateau trails. Contributing architectural features include grouted and dry retaining walls, and rock steps and bridge foundation.

4) Emerald Pools Trail

Beginning opposite the Zion Lodge and the Grotto Picnic Area, the two-way loop trail extends approximately 2.2 miles and links the upper, middle, and lower Emerald Pools. Designed by Landscape Architect Harry Langley, the trail was constructed in 1932 by stone masons employed by the National Park Service. The initial stone work was done by hand to obtain the highest standards of durability and natural appearance. The suspension footbridge was replaced in 1983-1984 with a non-contributing core tin steel bridge when the lower trail was paved for handicapped access. All man-made features built in 1932 contribute to its significance.

5) Gateway to the Narrows Trail

Designed and surveyed by Assistant Engineer, Guy D. Edwards, the trail was built by park personnel in 1929. Starting from the Temple of Sinawava at the end of the Zion Canyon Scenic Drive, the trail follows the Virgin River to ten north for one mile. At this point, the Canyon becomes so narrow that there is

no longer room for both river and trail. One of the least strenous and most popular trails in Zion, it is utilized as both a naturalist-guided and self-guided walk. Original pavement was an asphalt and gravel mixture, the gravel being spread and rolled and the bitumuls, (emulsified asphalt) applied by the penetration method. Grading work was handled to avoid all damage to the surrounding landscape and avoid unnecessary scars to rocks. In all, about 112 cubic yards of cement rubble masonry were built. Sections of the original serpentine sandstone retaining walls exist at present.

6) Grotto Trail

Beginning north of Zion Lodge and running parallel to the canyon floor for .5 miles to the southend of the Grotto Picnic Area, the trail is part of the original "Floor of the Valley Highway" associated with Mormon pioneer transportation in Zion (the present "Floor of the Valley Highway" does not follow the original right-of-way of this historic trail). Lodge patrons used it for the short hike to the museum and campers used it going to and from the lodge for supplies and mail. The trail was designed by Landscape Architect Harry Langley and constructed by National Park Service personnel in the summer of 1932. Weathered rocks and grapevines planted along the face of the walls give the walls a rustic appearance. These contributing features, along with the sandstone retaining walls and a 4 x 6-foot cut-slab culvert are well preserved at present. Only hand tools were used in the construction of this trail which averages 4 feet in width and has a ruling grade of 3 percent.

7) Hidden Canyon Trail

This 2,085-foot hiking path with moderate grades and sections carved into the joints of sheer cliffs on the east wall of Zion Canyon was built in three sections and completed on August 27, 1928. The first section (which leads from Hidden Canyon Junction) 3,150-feet above Weeping Rock Parking Area was constructed as a horse trail. There are 11 switchbacks on this 950-foot portion of trail which averages 4 feet in width. Eighty six cubic yards of locally quarried, dry laid sandstone wall holds the bridlepath in place. second 745-foot section was built for hikers only and begins at a saddle to the west of a talus slope. It climbs along a natural shelf and the only construction work is on the north side of the cliff where a section of solid rock was blasted out, and steps and an iron hand rail built. The third section begins at the head of a small side canyon and runs south 390 feet to the mouth of Hidden Canyon. As the slope of the cliff varies from 50 degrees to verticle, construction on this stretch was dangerous work for men who hung on ropes while drilling and blasting. This final portion of trail is 2 1/2 to 4feet wide and constructed on a grade from 16 to 22 percent. Hand rails and chiseled steps were added in the narrow sections. In keeping the the "NPS-Rustic" style of building design, a deliberate effort was made in trail layout and construction to blend the Hidden Canyon Trail into the cliff and shield it from view. All the man-made improvements from the period of construction contribute to the historic significance of the trail.

8) Zion-Mt. Carmel Highway

The Zion-Mt. Carmel Highway was dedicated on July 4, 1930, after 4 years of planning and of construction. Linking Zion, Bryce, Kaibab, Cedar Breaks

National Parks and the North Rim of the Grand Canyon, the road connects U.S. Highways 9 and 89, completing the tour loop envisioned by the Utah Parks Company in the early 1920s. The project was supervised by Thomas H. MacDonald, Chief of the Bureau of Public Roads. At the time of it opening, 8 1/2 miles of the highway were located within the park and the remaining 16 1/2-mile section was a Federal Government Aid project. Presently, the highway runs for approximately 10 miles from the Zion Lodge turnoff to the park's east border at the East Entrance Sign. Contributing structures located on the park's section of the highway include the Zion-Mt. Carmel Highway Tunnel, the Pine Creek Bridge, and the Virgin River Bridge (all described individually below), a .10-mile rock-faced tunnel, two 20-yard bridges with channeled concrete pylons, numerous culverts, and hundreds of cubic yards of random ashlar masonry retaining walls supporting the dramatic switchbacks.

8a) Pine Creek Bridge

In 1928, Thomas Vint, Chief Landscape Engineer for the National Park Service, and Regional Engineer Angwin inspected possible bridge sites on the Zion-Mt. Carmel Highway, then still under construction. The construction of the bridge was completed several weeks after the July 4, 1930, dedication of the highway. Located at the base of the six switchbacks which wind up Pine Canyon to the Tunnel on the Zion-Mt. Carmel Highway, the bridge is a masonry arch constructed of Navajo sandstone with a cemented rubblestone core. The crossing at Pine Creek is 20 feet in length and 30 feet in width. The barrel of the arch, with a massive supporting keystone in the center, is 23-feet high. The precise stone work is enhanced by the use of hand-hewn sandstone in shades of tan, brown, red, pink, purple, and green.

8b) <u>Virgin River Bridge</u>

Work on the Virgin River Bridge began in October 1929, in order to connect the new Zion-Mt. Carmel Highway with the Floor of the Valley Highway. The original bridge was 185 feet in length and 30 feet in width with two sidewalks. Constructed as a three-span bridge, with steel I-beams, it was camouflaged with 54-inch redwood slabs to convey a rustic appearance. The spans are supported by two ashlar sandstone piers 34-feet high. The bridge, which spans the Virgin River approximately 2 miles north of the park Administration Building, was altered in 1959 when the sidewalks were removed, steel reinforcing rods implanted, and the widened roadbed resurfaced. Those elements dating from the historic period contribute to the bridge's historic significance.

8c) Zion-Mt. Carmel Highway Tunnel

Construction from 1927 to 1930 by the Nevada Construction Company of Fallow, Nevada, and completed with \$503,000 in Federal funds, the tunnel provided access to Zion from the east, thus shortening the travel distance between the parks comprising loop tour. The tunnel is 5,613 feet in length, with a 4 percent grade change. The west entrance is faced with coursed, rock-faced ashlar sandstone outlining the opening with a key-stone arch. Six galleries in the tunnel open to Pine Creek Canyon. Originally, tourists were able to pull over their automobiles within the tunnel to view the park through these gallery openings, but with the changes in vehicle size and

speed, this is not longer possible.

8d) Zion-Mt. Carmel Highway Switchbacks

Beginning west of the tunnel, a series of six dramatic swithbacks lead down to the Virgin River. Several stone guardrails as well as hundreds of cubic yards of random ashlar masonry retaining walls are contributing elements along these historic switchbacks.

9) Oak Creek Canal

Harry Langley, Landscape Architect with the National Park Service, designed the Oak Creek Canal in 1935. The canal irrigated cottonwood trees which were introduced in the South Campground to provide a degree of shade and comfort for tourists. The work was carried out by enrollees of the CCC. The irrigation mechanisms associated with the canal have been continuously improved over the years. For example in 1941, the wooden flumes were replaced with concrete diversion dams. Therefore, the significance of the canal lies in its historical association with landscape architecture and none of the resources along its length are contributing elements of the canal.

III. "NPS-RUSTIC" STYLE

The historic structures in Zion are indicative of the "NPS-Rustic" style which dominated park architecture throughout the 1920s and 1930s. The intent of the style was to design buildings which would not intrude upon the natural scenic beauty and which would actually blend with the specific terrain by a use of building materials and massing similar to the natural landscape found in the park. The style was also used for other man-made structures such as gates, campsite fireplaces, water fountains, paths, retaining walls, and curbs.

The salient characteristics of the "NPS-Rustic" style are an attention to handcrafted details such as hewn logs, carefully detailed masonries, shingleroofs, and a use of generally over-scaled elements such as massive rock walls which seemingly grow out of the earth and beams, rafters, and eaves which extend beyond and break the edges of the roof and wall.

The historic architecture of Zion took it cues from the spectacular geology of the canyon and the local Mormon vernacular building tradition. As a consequence, stone is the predominent building material. The surrounding canyons of Navajo sandstone, the name for the local red sandstone, are reflected in the red sandstone blocks used in construction of the buildings. After 1934, much of the stone came from the nearby Zion Stone Quarry; prior to that date, red sandstone was transported from outside the park. The Oak Creek Ranger Dormitory (5), constructed in 1941, represents the solitary departure from the rustic vein in its strict devotion to a Mormon vernacular building tradition. In its use of smooth-faced rock, rectangular massing, gable roof with cornice and gable returns, and sash windows, the dormitory revives extant 19th Mormon homesteads in the immediate vicinity of the park.

Building construction dropped noticeably within Zion with the outbreak of World War II. Construction activity did not return until the advent of Mission 66. Beginning in 1955, the National Park Service launched a massive construction

campaign to increase the carrying capacity of the parks. The architecture associated with this decade of activity has yet to receive scholarly examination and evaluation. One can, however, observe a trend away from the rustic style associated with earlier park structures. All structures built after 1941, including Mission 66 structures, are non-contributing resources within Zion.

COMPLEXES

1) Oak Creek Historic Complex

The buildings in the Oak Creek Historic Complex represent the architectural development of the "NPS-Rustic" style at Zion throughout the 1930s and early 1940s. The need for housing for park employees, the need for improved maintenance and storage facilities (previous utility buildings were demolished in the early 1930s to make space for the present utility buildings), and the availability of CCC labor and Public Works Project funds, resulted in the expansion of park buildings to the Oak Creek Canyon Area.

Buildings 5, 8, 9, 10, 21, 24, 25, 26, 76, 77, 78, 79, 80-83, 109, 110, 111, and 112 contribute to the theme of rustic architecture in Zion and are eligible for inclusion under Criterion C. Of these, buildings 21, 24, 25, 26, 109, 110, 111, and 112 date between 1936 and 1941 and reflect the later development of rustic architecture in Zion. To exclude these resources would result in an incomplete inventory of rustic style buildings at Zion. All other structures within the complex, including buildings 6, 14, 15, 11, 27, and four wood utility sheds in the utility area are non-contributing because of their recent date of construction, style, and material. One of the non-contributing buildings, the original South Entrance Check Station, has been moved, resulting in a loss of historical context.

2) Pine Creek Historic Complex

These buildings are among the earliest examples of Zion-built resources in the rustic style, and are situated near the original headquarters area of the park. The three houses and two garages have always served as residences for the park Superintendent and other administrators at Zion. All five buildings in the Pine Creek Area are included in the Pine Creek Historic Complex and are eligible under Criterion C. Buildings 001, 002, 003, and 107 were built between 1928 and 1932 and are examples of rustic construction in Zion. Building 102 was built in 1938 and in materials, construction technique, and style is related to the architecture theme defined for the park. Other contributing historic features within the complex boundaries include stone retaining walls and a stone pathway which leads to the current Superintendent's Residence.

3) Zion Lodge/Birch Creek Historic Complex (Zion Lodge Historic District was enrolled individually in the National Register in 1982)

The buildings in this discontiguous complex were constructed by the Utah Parks Company, concessionaire at Zion, and were designed by Gilbert Stanley Underwood. Hired by the Utah Parks Company, Underwood worked within the tenets of the "NPS-Rustic" style. His buildings at Zion are built predominantly of

wood, with exposed stud construction. Stone is reserved for chimneys and porches. Near the non-contributing Zion Lodge (rebuilt in 1966), Underwood designed tourist cabins, of which 15 remain. The Men's and Women's Dormitories, the Bake Shop, and the Mattress Shed also remain. All buildings date from the late 1920s except the Men's Dormitory, built in 1937, which is integral to the rustic architectural character of the district and which is similar to the earlier buildings in style, construction, and materials.

The Birch Creek Utility Buildings were also designed by Underwood and built by the Utah Parks Company for their use as maintenance and storage facilities. The four remaining buildings include three which were originally used as garages for touring "auto-stages." The buildings, of corrugated iron with exterior wood studs, are similar to Underwood's buildings in the lodge area, and as utilitarian examples of rustic construction, contribute to the architecture theme of rustic construction identified at Zion. All structures built after 1937 in the discontinuous district do not contribute to the historical character of the Zion Lodge/Birch Creek Historic District.

Contributing buildings are:

Zion Lodge Area - Deluxe Quadraplexes 206, 207, 210, 216, and 217; Deluxe Quadraplexes 211, 212, 213, 214, 215, 218, 219, 220, 221, and 222; Women's Dormitory 208 (NPS 83); Men's Dormitory 209 (NPS 84); Bake Shop 205 (NPS 79); and Mattress Shed 87 (NPS 87)

Birch Creek Utility Area - 86, 86A, 3, 223, and (unnumbered horse barn).

 $\frac{\text{Buildings}}{\text{style}} \ \underline{\text{and}} \ \underline{\text{Structures}} \ \underline{\text{thematically related to the theme of "NPS-Rustic"}}$

While not associated with a historic complex, these buildings are identified with the theme of "NPS-Rustic" style in Zion, date from the same period, and exhibit the same characteristics of style, material, and construction technique. This list includes the remaining historic buildings built by the National Park Service to expand tourist services and facilities. Some of the buildings were funded as Public Works Projects, and some were built with the labor of CCC enrollees. The Zion Inn was a concession-owned building designed by Gilbert Stanley Underwood and built by the Utah Parks Company. The museum, now the Grotto Residence, built in 1924, is the oldest extant building in the park. All other buildings and structures built in Zion (primarily buildings built during Mission 66) which are not included in a complex or in the following list of individual contributing structures, are deemed non-contributing on the basis of date of construction, style, materials, or construction technique, and, therefore, ineligible for listing in the multiple resource nomination.

Contributing historical structures are:
East Entrance Sign
East Entrance Checking Station
East Ranger's Residence
South Entrance Sign
Museum (Grotto Residence)
Grotto Camping Ground North Comfort Station

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Grotto Camping Ground South Comfort Station Zion Inn (Zion Nature Center) South Campground Comfort Station Temple of Sinawava Trailside Exhibit Building South Campground Amphitheatre